



Homeowner Maintenance Manual

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Table of Contents

Utilities..... 4

Safety Notes..... 5

 Safety Equipment..... 6

Heating and Ventilation 7

Plumbing and Water 9

Lighting and Electrical 12

Exterior..... 13

 Siding..... 13

 Windows 13

 Roof..... 13

Interior 14

 Paint 14

 Flooring..... 15

 Kitchen Cabinets..... 15

 Kitchen Countertops 16

Appliances 17

Indoor Air Environment..... 21

 Safe, Effective, Non-toxic Cleaning Recipes..... 0

Additional Resources..... 2

 Recycling 2

 Disposing Of Hazardous Materials 2

 Alternative Transportation 2

 Home Composting 3

Important Places in Your Home 4

Regular Maintenance Schedule..... 5

 Homeowner's Maintenance Checklist..... 6

Introduction

Congratulations! You now have a home that was built to be healthy, comfortable, energy efficient, and sustainable. You are living in a “High Performance, Healthy Home.”

The purpose of this manual is to provide education and maintenance guidance about the features of this “Green” home, offer suggestions to improve energy efficiency, and help you and your family further reduce your impact on the environment.

Please keep this manual for future use as it contains information on important shut-offs, safety features, and maintenance tips.

No endorsement of named products is intended, nor is criticism implied of products not mentioned.

The benefits of your home

Your home is designed and built to use less water than a typical home to save you money on utility bills. Specifically, the water faucets and toilets in your home are more efficient in getting their jobs done with less water, and the landscaping outside your home requires less watering. You may also have features that capture rainwater on your lot that you can use to water your landscaping.

Your home is designed and built to use less energy than a typical home to save you money on utility bills and other basic expenses. It is carefully insulated on all sides, from below the foundation to the top of the roof. The furnace, water heater, and appliances meet **Energy Star**® standards, which mean they use less energy than the average home appliance.

There are many choices you can make to use less energy while living in your home. What you plug into the electrical outlets has a large effect on your electrical bills. Buy more efficient appliances when you get new ones, and turn them all the way off when not in use. TVs, DVD players, and many other home electronics use significant electricity even when turned off, but still plugged in.

The air within most homes built today is more polluted than the air outside, but your home is designed and built to be healthier than a typical home. Many details ensure water is controlled to avoid mold growth. Low-VOC paint and adhesive products were used to help improve indoor air quality and limit indoor air pollutants. Finally, ventilation is provided to ensure that any moisture or toxins that are produced by you living in your home are removed.

When you make improvements to your home, this guide will help you know how to preserve these qualities for the future, and know how to make the best water and energy choices.

Washington State Evergreen Sustainable Development Standard

Your new home has been certified to meet the Washington State Evergreen Sustainable Development Standard. Using the Evergreen standard as a reference in planning and building, your home has met a number of green and sustainable building criteria. Habitat for Humanity of East King County provided documentation (such as floor plans and the results of energy efficiency testing) to show that all applicable criteria in the guidelines have been met.

The Washington State Evergreen Sustainable Development Standard (available at www.cted.wa.gov/evergreen) provides builders with information about different aspects of green building. The criteria are also the basis of our certification program. In order for a home to be certified, the builder must meet mandatory requirements in most of the Criteria's eight sections (Integrated Design, Location & Neighborhood Fabric, Site Improvements, Water Conservation, Energy Efficiency, and Materials Beneficial to the Environment, Healthy Living Environment, and Homeowner Education). We emphasize meeting criteria like energy efficiency, healthy living and water conservation as priority requirements. However, because there is no one way to build green, we also provide builders with a lot of other options, and allow them to choose what makes sense for each project.

Although certification to Washington State Evergreen Sustainable Development Standard does not imply any warranty or guarantee for the home or the home's performance, your home should perform better than other similar new construction homes and provide substantial energy savings.



Built Green

Your new home has been certified to meet the Master Builders Association's Built Green standard. Built Green is an environmentally-friendly, non-profit, residential building program developed by King and Snohomish counties. Using the Built Green standard, your home has met a number of sustainable building criteria to become certified by the Master Builders Association.

Built Green homes are qualified using a checklist organized into 4 categories of environmentally friendly action items. Builders choose which features from the categories of Site and Water, Energy Efficiency, Health and Indoor Air Quality, and Materials Efficiency are most appropriate to include in the home. When construction is complete, Habitat for Humanity of East King County sends a signed copy of the checklist to the MBA, certifying that the home identified in the project enrollment form contains the identified features. Based upon that builder certification, and after reviewing the application, the MBA will award the appropriate Certificate of Merit indicating that the home has received a 3-, 4- or 5-Star rating.



What is a NORTHWEST ENERGY STAR® Qualified New Home?

The energy used in homes often comes from the burning of fossil fuels at power plants, which contributes to smog and pollution, acid rain, and risks of global climate change. So, the less energy used the less air pollution that is generated.

Homes that earn the **NORTHWEST ENERGY STAR®** certification must meet guidelines for energy efficiency set by the U.S. Environmental Protection Agency. **NORTHWEST ENERGY STAR** homes can include a variety of energy-efficient features, such as effective insulation, high performance windows, tight construction and ducts, efficient heating and cooling equipment and **NORTHWEST ENERGY STAR** qualified lighting and appliances. These features contribute to improved home quality and homeowner comfort. They lower energy demand, reduce air pollution and save you money.

Did you know that a typical home can produce twice the greenhouse gas emissions as the typical car?

For more information visit: www.northwestenergystar.com

What are NORTHWEST ENERGY STAR® products?

You will find the **NORTHWEST ENERGY STAR®** label on products that exceed energy performance guidelines for energy efficiency. If all consumers, businesses and organizations in the U.S. chose **NORTHWEST ENERGY STAR®** products over the next decade, the national annual energy bill would be reduced by about \$200 billion. By using **NORTHWEST ENERGY STAR®**, you help prevent global warming, prevent pollution, and promote cleaner air.

Utilities

Electricity, Gas, and Water Hook-ups

Hopefully by now you have taken the time to either go to or call the utility companies to start the service at your new home. When you speak to the representative of the utility company, make sure to inform them that this is a NEW house- This makes a difference! You will not have to be home for the utilities to switch the water and gas to your name. They will stop by and read the meters - you become liable for payment from that point on. **YOU MUST TRANSFER ALL UTILITIES TO YOUR NAME BEFORE MOVING INTO YOUR NEW HOME.**

Phone and Cable Hook-ups

When you speak to the Phone Company or Cable Company, inform them that your new home is pre-wired and is ready for service. The phone company will come out and install a grey box to the side of your house. When you place your order for cable, they will set up a date and time when a service person will come to your house and connect the service. All the cable wires in your home are run to a central location on the inside of your home. The service person will install another grey box to the side of your home and make all necessary connections to insure proper operation of your cable system.

Electricity provider: _____
Gas provider: _____
Water and sewer provider: _____
Trash service: _____

Phone Service: _____
Cable provider: _____
Internet provider: _____

Energy Savings Programs from Local Utility

The State of Washington requires utility companies to promote energy efficiency through the Northwest Energy Efficiency Alliance (NEEA). Each utility has slightly different programs.

The Northwest Energy Efficiency Alliance (NEEA) has a web site www.nwalliance.org where further information on this program can be obtained.

Puget Sound Energy offers some incentives and programs promoting green energy at www.pse.com

Safety Notes

Throughout this document are safety comments outlined in boxes. Please take careful note of them as they are all pertinent to the health and safety of you and your family. Read the safety suggestions in this document and follow them at all times.

Household current is 110 volts of alternating current. If you were to come in contact with a live wire, it could easily kill you. To protect yourself and your family there are some precautions you must follow:

- **Always keep the plastic covers in place around electrical switches and outlets. If any of them crack or break, replace them right away.**
- **Use plastic safety caps that plug into unused outlets to keep small children from putting things in the outlets.**
- **Water is an excellent conductor for electricity. Turning on or off switches or plugging/unplugging appliances with wet hands greatly increases your chance of getting injured or killed.**
- **If you are going to replace an electrical switch, or otherwise work on an electrical circuit, turn off the current at the circuit breaker panel and then verify that the circuit is off before touching it.**
- **Do not use the telephone during an electrical storm. If lightening strikes the telephone lines, the strong electrical current will be looking for paths to ground and you may be one of them.**
- **If you feel the need to have a generator during power outages you must have a qualified electrician install a “power transfer switch” installed at your power panel. You should also take great care in the placement of the generator while it is in operation as the exhaust is poisonous carbon monoxide which can cause death. Never place the generator inside your home or garage. Keep the generator away from all home ventilation and windows that can be opened.**
- **A household with either young children or handicapped individuals should never have the water heater set above the normal setting or severe burning may occur.**
- **Never leave a garden hose hooked up to your water bib during the winter. If the water was not completely shut off, this will defeat the barrel mechanism and system freezing will occur.**
- **It is important to know where, how, and when to shut off appliances. One example, earthquakes do occur in Washington. A severe earthquake can break gas lines, tip over hot water tanks, or cause other kinds of damage. Also, if water pipes freeze in very cold weather, you will need to turn the water off before the pipes thaw out and flood your house or crawl space.**

Safety Equipment

Your home is equipped with a smoke alarm and a carbon monoxide detector. In the event of a fire, a smoke alarm will give an early warning signal, usually in the form of a beeping sound. There is a smoke detector in every bedroom and at least one additional one per floor.

A carbon monoxide (CO) detector is a device that detects the presence of carbon monoxide, a colorless and odorless gas that is produced by incomplete combustion and can be lethal at high levels. If a high level of CO is detected, it will sound an alarm giving you a chance to ventilate the area or safely leave.

Smoke alarms and carbon monoxide detectors can come in separate units, but may also be combined into a smoke/carbon monoxide detector unit. To verify what your detector is, refer to the back of the detector itself. You can find the model information on the back when you replace the battery.

Care and Maintenance

Your smoke detector is “hardwired” that is, they get their energy from your homes electrical wiring. They continuously activate as long as there is electricity. In case of power failure, they have a backup battery.

- Check detectors periodically by pushing the button on the bottom
- Replace the back-up battery twice a year (or according to manufacturer’s suggestion); a good time is when you change your clock for daylight savings time.

Heating and Ventilation

Heating

This home has been constructed to save energy and provide comfort. It has been fitted with a central gas-fired heating unit which uses filters to help keep the air in the home healthy and free of pollutants as well as protects the unit itself from debris which could diminish its' performance. Leaky homes waste a tremendous amount of energy. Well-sealed homes must have proper ventilation to maintain a healthy indoor environment.

Opening windows and doors, and using ceiling fans are great for keeping the home comfortable throughout much of the year.

Equipment:

Programmable Thermostat

Your Honeywell programmable thermostat located in the living room can be set to automatically adjust your home's temperature settings while you're away or sleeping.

For example, if you are like many homeowners and work outside the home during the day, you might program your thermostat like this for weekday: Wake Up (6am) 70°; leave for work (8am) 62°; return (6pm) 70°; Sleep (10pm) 60°. (Your thermostat may already be pre-set to use these **ENERGY STAR** temperature settings.)

Heating System:

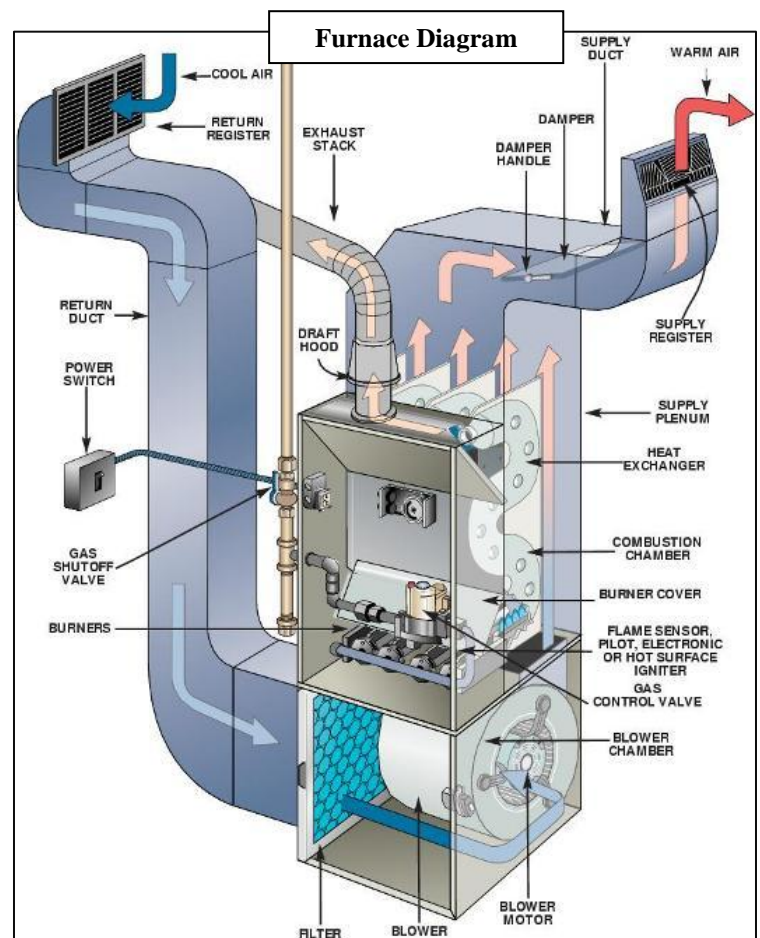
Your home is equipped with an **ENERGY STAR** rated gas-fired furnace and has an AFUE (annual fuel utilization rating) of 90% which means that 90% of the fuel consumed is directly converted to heating your home.

Care and Maintenance:

Keep the area around your furnace free and clear of combustive materials, gasoline and other flammable vapors and liquids.

Keep the exterior vent free of obstructions and visually inspect the vent pipe once a year.

Your home has a central heating unit which uses filters to help keep the air in the home healthy and free of pollutants as well as protects the unit itself from debris which could diminish performance. Dirty filters reduce air flow to the system, which can eventually lead to damage of the heating unit. Start by changing the filters twice a year (check with manufacturer's instructions for additional information). How often they need to be changed can depend on several factors (pets, high use, living in a dusty area, etc.), so check your filters regularly to determine how often it is appropriate for you to change them. Change the filter with the exact same high-performance MERV 12 filter. You can find the filter label on the outside frame.



Ventilation

The ventilation system for your home provides a supply of healthy fresh air and will run either continuously or intermittently depending on the type of van and the needs of your home. It will quietly run whenever the house is occupied, even on those days when windows are open, because it is needed in all seasons. Although it might be expected that running the ventilation system is more important in the winter, mechanical ventilation is needed during spring, summer, and fall to ensure that a proper amount of fresh air is brought in from outdoors. All of the fans in your home are **ENERGY STAR** certified to minimize the amount of energy used to provide adequate ventilation to your home, saving you money on your utility bills.

In a new home, it is especially important to run the system continuously during the first year or two after construction to ventilate the extra moisture and gasses emitted from construction materials, carpets, and other new furnishings. The whole house ventilation system is equipped with a timer, but certain areas such as the kitchen and bathrooms will have supplemental ventilation available which the homeowner must manually use to increase the ventilation rate for those areas during periods when additional ventilation is required. (Such as during cooking or taking a shower)

Equipment:

Bathroom Fan

Be sure to run the fan during showers. Both mold and dust mites, tiny life forms that can be irritating to the lungs, thrive in moisture. It is recommended to run your bathroom fan for 60 minutes after your shower.

Range Hood Fan

It is important to run your range hood fan while cooking to expel steam, gases, smoke and other byproducts of your stove that can result from cooking. Use low speed unless you need to get rid of smoke.

It is important to note that the ventilation system is designed to protect the air quality in your home under normal operating conditions. It will NOT protect you and your family should you use charcoal, propane or other sources of combustible heat inside your home during a power outage. Charcoal and various other fuels generate the highly toxic gas, Carbon Monoxide, which has no smell, taste or color. Using charcoal and other combustible fuels for heat during power outages has killed entire families! It is never safe to use indoors.

Plumbing and Water

Conserve Your WATER! Many of your homeowner bills are tied to water usage directly and indirectly. The amount of water you use in your home is the source of billing information your local waste water department uses to determine the amount charged for sewage treatment. Likewise the amount of hot water a family uses directly effects your energy bills.

- Low flow showerheads and faucet aerators have been installed in your unit. They are specially designed to provide good pressure and reduce water flow.
- Take showers not baths. Baths take huge amounts of water. Take short showers—5 minutes or less. Short showers = lower water and electric bills.
- Repair all running toilets and dripping faucets immediately to reduce potential high water bills. Water is a precious resource—use what you need and save the rest.
- Don't let the water run unnecessarily when hand washing
- Turn the water off. Minimize faucet use when washing dishes.
- Wash only full loads of laundry. Wash clothes in cold water to save energy. You save \$\$\$ every time you wash with cold water!
- The laundry is equipped with resource efficient, Energy Star machines. Please use low-sudsing, environmentally friendly detergents made for front-loading washing machines. These products are usually marked "HE" for "High Efficiency".

Equipment:

Water heater

Your home has a highly efficient gas-fired water heater. It has an **ENERGY STAR** efficiency rating of .62. At this time you cannot buy a more efficient gas-fired system.

Manufacturer:

Care and Maintenance

Most water heaters have three settings: hot (160° F), medium (140° F), and warm (120° F). Medium is usually the best setting for a home and by slightly lowering the temperature setting you can save energy and lower your utility bills.

Keep area around your boiler free and clear of combustible materials, gasoline and other flammable vapors and liquids. Keep the exterior vent free of obstructions. Have a trained technician check your boiler annually to make sure it is in good working order.

Leaking Faucets

Faucets may be loose and need to be tightened.

- If water leaks from around the stem of the faucet just below the handle, wrap cloth around the packing nut to protect the finish and tighten with a wrench.
- Check for loose parts and tighten as necessary.

Packing around the valve stem may have worn out.

- Shut off the water below the sink or at the main water supply valve.
- Replace packing stuff wrapped around the stem by removing the faucet handle, then the sealer if there is one, and unscrewing the packing nut. The handle may be removed by loosening the packing nut and screw found either underneath the handle or on top covered by a cap or plate that snaps or screws off.

Valve washer may be worn out.

- Lift out the valve stem, take off the brass screw, pry out the old washer and put a new one of the same size and shape in its place.

If the valve seat is nicked,

- Buy a seat dressing tool at a hardware store (usually low cost) and follow its directions or if the valve seat can be taken off, buy a new one.

Toilet Repair

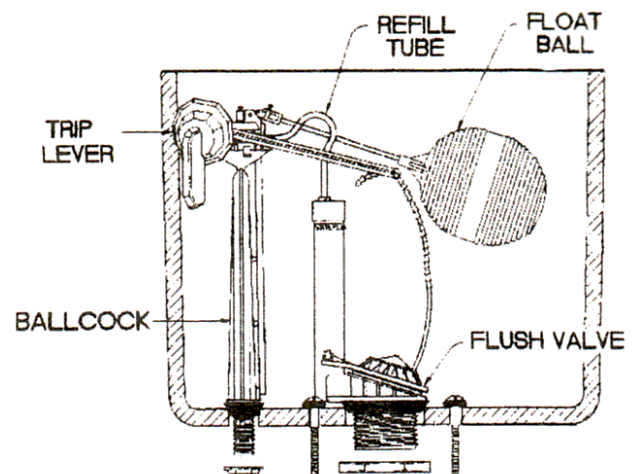
Handle sticks or is Loose-remove the tank cover and the clean the mounting nut (located on the inside behind the handle). If there is a buildup of lime around the mounting nut, clean it with a brush dipped in vinegar. Also check the chain that connects the handle, lift arm, chain, flapper valve and the connections between each of the parts to make sure all are functioning. The handle may be too loose or tight. The lift arm may be bent or broken. The connection between the lift arm and lift chain may be broken or out of adjustment, so it does not raise the flapper valve far enough.

Toilet won't flush completely-Remove excess slack in the lift chain.

Toilet is clogged or overflows-Get a plunger. Place the cup of the plunger over the drain opening and force the handle up and down rapidly. By doing so, you should produce enough suction to loosen the clog. When you believe you have removed the clog, slowly pour water into the bowl to flush debris.

If that doesn't work, you need a closet auger or "snake," designed especially for this task. Insert the auger into the drain. When you reach the blockage, try to thread the auger through the clog. After snagging the source of the clog, continue to twist the auger as you pull it from the trap.

If more than one toilet or drain in your home is backing up, the line is likely blocked downstream from the point where the waste lines come together. Long augers are available for these situations. If your main drain line



contains no clean-out access, these long augers may need to be inserted directly through the toilet flange. This requires the temporary removal of the toilet.

Toilet will not stop running

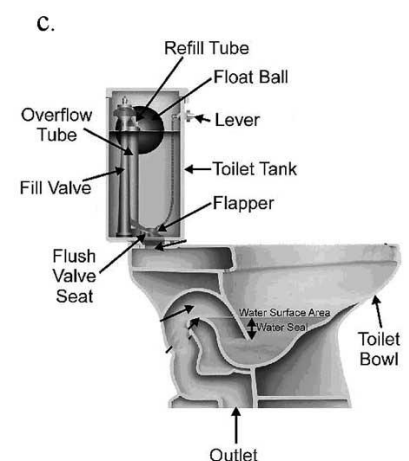
- Start by jiggling the handle. If the running stops, you need to either adjust the lift chain attachment or the handle.
- If that does not work, remove the tank cover and check to see if the float ball is touching the side of tank. If it is, bend the arm to reposition the float ball away from the edge of the tank.
- Lift the float rod above the water level. If the water stops running, gently bend the rod down until the float is at rest when the water level is about half inch below the top of the overflow pipe.
- Check to see if your float ball is leaking. If more than half of the float is underwater, it may have a leak. Turn off the shutoff valve below the tank and flush the toilet to empty it. Unscrew the float and shake it. If you hear water inside, replace the float ball.
- Sometimes the flapper valve becomes worn or distorted and does not seal the tank. This problem is easy to fix. Just empty the tank, remove the flapper and replace it with a new one.
- Sometimes the flapper valve becomes worn or distorted and does not seal the tank. This problem is easy to fix. Just empty the tank, remove the flapper and replace it with a new one.
- If the flapper valve seat is pitted or cracked, the whole unit can be replaced. Kits are available for this purpose, both they usually require that the tank be removed from the bowl. For this repair, follow the directions included with the flapper valve/seat replacement kit.
- If the toilet still runs, empty the tank again and remove the screws that hold the float rod and its attached linkage to the intake valve. Pull the intake valve plunger up and out of the plunger seat. You may need to pry it gently with a screwdriver to get it started. Replace the washer at the base of the plunger and the washer or packing that fits in the groove on the plunger body. As an alternative, entire ballcock assemblies are available in economical replacement kits. They come completely assembled and only need to be installed in the tank. Follow the manufacturer's instructions.

Water on the Floor- start by checking connections. Is everything tight? If not, tighten or replace the washers.

If water is dripping from the tank during humid weather, it is probably condensation. Fix this problem by installing a toilet liner kit, a foam panel placed inside the tank. To install a liner, cut off the water, drain and clean the inside of the tank. Cut panels to fit your toilet and attach them to the tank.

Is the toilet tank cracked? If so, you need to buy a new tank. Unless your toilet is fairly new and direct replacements are readily available, consider purchasing a whole new toilet. This will eliminate potential problems with trying to fit a tank to an existing bowl.

If water is around the base of the toilet, it could be caused by a wax ring that no longer seals or by a cracked toilet base. If the toilet leaks constantly, the toilet base is cracked and must be replaced. If leaking occurs during or after flushing, replace the wax ring.



Lighting and Electrical

Lighting: Your light fixtures include **ENERGY STAR** compact fluorescent bulbs (CFL) and most have been hardwired to accept only compact fluorescent bulbs. If a bulb goes out, please replace with another CFL, not a traditional incandescent bulb. Fluorescent and compact fluorescent lighting cost a little more than regular bulbs upfront, but use significantly less energy and last much longer. They also generate very little heat which is important in the cooling season. They are available now in several color ranges that reflect natural lighting. **Do not use dimmers with fluorescents as it will burn out the ballast.** If every American home replaced just one light bulb with a CFL, we would save enough energy to light more than 2.5 million homes for a year and prevent harmful greenhouse gases equivalent to the emissions of nearly 800,000 cars.

How to Choose the Right CFLs

Screw-in CFLs can be used in most standard lamp fixtures. Read packaging carefully to make sure that the type of bulb you choose works for the fixture you have in mind and look for the **Energy Star label**. For example, if you have a fixture that is connected to a dimmer, select the CFL that is labeled for this use.

Fluorescent and compact fluorescent lights both contain trace amounts of mercury and so need to be disposed of properly. Many home improvements stores provide free disposal service for compact fluorescent bulbs.

If one breaks, it is important to ensure all pieces are properly cleaned up. **Do not use your fingers to clean-up fragments.** Sweep up-don't vacuum-all of the glass fragments and fine particles. Place the broken pieces in a sealed plastic bag and wipe the area with a damp paper towel to pick up any stray shards of glass or fine particles. Put the used towel in the plastic bag as well.

Do not dispose of light bulbs in garbage. Please see disposal of hazardous materials under the additional resources section for a list of disposal locations.

Other Electrical:

GFI Outlets

In rooms with water, such as bathrooms and kitchens, some of the electric outlets will be GFIs (Ground Fault Interrupter). A GFI is a safety feature on the outlet that helps prevent injury from electric shock. A GFI has two buttons: "test" and "reset". Occasionally, one of the buttons will trip or switch off, and stop an appliance from working. When this happens, push the reset button. If a GFI keeps switching off, it may have too many appliances or lights running at one time.



Exterior

Siding

Fiber cement siding has been installed on your home. It is durable and low-maintenance. It is made from a combination of cement powder and fibers it does not dent or is penetrated easily. Although the siding does not require periodic painting, it can be, but check with your HOA before choosing a different color.

Care and Maintenance

The HOA is responsible for all of your home's exterior maintenance, but it is good practice to annually walk around your house to check for dents, chips, cracks, and other surface damage. These are easily fixed or filled so please mention any damage to your HOA representative.

Windows

Windows play a key role in the energy efficiency of a home. In the summer they can allow unwanted heat into your home and in the winter they can account for up to 25% of heat loss. Your windows were chosen to be high performance, meeting or exceeding ENERGY STAR requirements, which means your windows perform better than those not meeting ENERGY STAR standards. Your windows are made from durable vinyl which requires no painting and are relatively maintenance free.

Care and Maintenance

The glass panels can be cleaned by using a lintless cloth, sponge, or chamois and a commercial or homemade glass cleaner. The use of a rubber squeegee will speed glass drying. A mild household detergent solution may be used to clean the interior and exterior surfaces of the frame.

Roof

Asphalt composition shingles make up your home's roof. They are durable and low-maintenance and include a 30 year warranty.

Care and Maintenance

Your HOA is responsible for roof upkeep, but periodically check for damaged shingles and let your HOA know if damage or moss and mold growth does occur.

Moss and your Roof

Moss is a natural part of the Pacific Northwest. There are various chemical treatments available on the market for control of moss and other growth. However, several have adverse environmental impacts including harming salmon populations and other aquatic species. For this reason, homeowners should avoid all zinc and copper products including zinc sulfate, monohydrate, copper sulfate (also called blue stone), galvanized ridge caps, copper flashing, and copper wires. It is unwise to use table salt to kill moss and algae as it is corrosive to metal and is not very effective.

Instead remove moss gently using a stiff brush, broom, or power washer for hard-to-reach areas. Consider talking to your HOA and hiring a professional to remove moss from your roof, because incorrect moss removal may result in breaking the bond between shingle layers and damaging the roof's ability to protect your home from water. As a last result, moss can be killed by spraying it with hot water (use a utility or other sink with hot water supply and connect a house).

Interior

Paint

Your home has been painted with low-VOC non-toxic paint. In addition to low VOCs it was manufactured without mercury or mercury compounds, or pigments of lead, cadmium, chromium or their oxides. This means that the paint in your home won't release as many or any toxic chemicals and odors into your home.

Care and Maintenance

Paint cleans easily with just soap and water.

More information at www.valspar.com

Painting Tips

- Use latex paint for interior surfaces. It is water bases, goes on and dries faster, cleans up with soap and water, and comes in gloss, semigloss, satin, and flat.
- Flat paint is a good all-purpose paint for bedrooms, and living areas, but pick a sem-gloss paint for kitchens and bathrooms to make clean-up easier. Semi-gloss paints are more durable and easier to clean, but don't hide blemishes well. If in doubt as to which type of paint to buy ask your local hardware or paint store for advice.
- Choose a good paint-It lasts longer, covers more, is smoother, and will not peel.
- How much to buy-Multiply how long the area is by how wide it is for each wall and add all together. The paint can label will tell you how much area the can covers.
- Preparation-Take everything off the walls, move furniture out or to the center of the room and cover with plastic or old sheets. Cover the floor, take down light fixtures and switches, tape around woodwork, windows, and doors, and wipe surface with clean, dry cloth.
- Find the right brush-Rollers are easy to use for large painting areas. Buy a brush for smaller sections and ask a salesman to find the right type of brush for your application.
- Start by painting corners of walls, ceilings, and tight spaces around trim.
- If you are painting the ceiling, paint that first.
- When using a roller paint big "M's" or "V's" in long up and down strips to even out paint.
- Paint strips about 2' wide and start each new strip on top of the one before it.
- Clean brushes as soon as done, comb bristles smooth, and store flat or hanging.
- If you didn't finish in one day you can store brushes and rollers in tightly wrapped plastic with paint still on them for a day or two, but if left too long the paint will harden and ruin the brush or roller.

Drywall

As new homes go through a normal shrinkage process, minor cracks will appear in the drywall. It is recommended that you not attempt to repair these occurrences in the surface until the end of your first year in the house. This is the average time required for new walls to settle and dry out completely. Any repairs to hairline settlement and/or shrinkage cracks are the responsibility of the homeowner.

This normal shrinking can also cause nail or screw pops. The framing studs and the wallboard shrink away from the nail or screw and leave it sticking out beyond the surface of the wallboard. Popped nails do not alter the strength of the wall. The nail should simply be reset, and the resulting dimple respackled and repainted. Also,

unusual abrasions may scuff or indent the surface of the gypsum wall. In that event, fill the indentation with two or three applications of joint cement used for drywall taping.

To repair, fill cracks or small holes with spackling compound (available from any paint or hardware store), smooth it out with fine sandpaper, and then repaint the entire surface. If you only repaint the area repaired, it will most likely not match the surrounding area due to normal aging. Except in very unusual conditions, cracks should not reappear.

For larger holes (4"-6"), make a drywall patch. Cut the area around the hole to make a square or rectangle. Cut a corresponding shape that is 2" wider and 2" longer than the hole. Lay the piece shiny side down and measure 1" from all four sides and draw a line. This should form a shape the size of the hole. Using a straight edge and a utility knife, cut through the drywall to the bottom layer. Do not cut the bottom layer of paper. Using a putty knife, remove the top layer of paper and core all the way down to the bottom layer of paper. Be careful not to tear the bottom layer. The cut part of the patch should fit into the hole. The paper edge should cover about 1" around the hole. Apply a thin layer of patching compound around the hole. Place the patch into the hole. Using a putty knife, work the paper edge down into the compound. Feather the edges of the compound and allow it to dry. You may need to sand lightly and apply a second layer of compound to finish the repair.

Flooring

Carpet: If your home includes carpeting it was installed by the dry method to reduce the use of toxic adhesives. Dry method installation means that your carpet was installed without using toxic glues and adhesives to hold the carpet in place. Limiting the use of adhesives and sealants improves the overall indoor air quality of your home.

Care and Maintenance

Carpet should be vacuumed frequently and every few years cleaned and shampooed by a professional carpet cleaner. Taking off shoes at the door will increase the lifespan and cleanliness of your carpet.

Tile or other hard surface: Hard surfaces were chosen for your home to include as much recycled content as possible. Hard surfaces were chosen to reduce the amount of allergens such as dirt, pollen, mold spores, dust mites, and other microbes, improve the indoor air quality of your home. Hard surfaces are always used in wet areas such as kitchens and bathrooms for easy spill clean-up and to prevent mold and mildew growth.

Care and Maintenance

Clean surfaces thoroughly and often by sweeping and mopping. It is recommended to use non-toxic cleaning products. Recipes for cleaning products can be found under the indoor air quality tab.

Wood/laminate Surfaces: Lift, don't drag, the furniture to avoid scratching the floor. Wipe up all spills as they happen. Standing water can warp floors and damage finishes. Felt pads can be purchased at a hardware store and attached to furniture legs to help prevent scratches.

Kitchen Cabinets

Your kitchen cabinets are made from particleboard, wood veneers, and solid wood. They are durable and do not require any maintenance beyond cleaning.

Care and Maintenance

Use gentle cleaning to wipe down fronts and interiors. Do not use products containing acetone, acetate, ethyl alcohol, ammonia, or other harsh solvents as they may ruin the finish.

Kitchen Countertops

Your kitchen countertops are laminated Formica. It contains some recycled content and provides a durable finish.

Care and Maintenance

Certain substances such as heat, acids (red wine, lemon juice, vinegar), and harsh cleaners can damage the finish. Mild detergent soaps and water is the best cleaning agent for this countertop.

Appliances

Gas/Electric Range

It is important for both sanitary and safety reasons to keep this appliance clean. A dirty stove is a fire hazard! If you should happen to have a small fire in an oven, turn off the oven and let it burn out.

DO NOT OPEN THE DOOR TO TRY TO PUT THE FIRE OUT.

Opening the oven door will only give the fire a fresh air source to flare up and personal injury may result. Pan fires on top of the stove can normally be put out with a lid that fits securely to the pan. The idea is to remove the air source, and the fire will go out.

NEVER USE WATER TO PUT OUT A STOVE TOP OR OVEN FIRE. WATER AND OIL DO NOT MIX AND WATER WILL CAUSE A REACTION THAT WILL MAKE FIRE JUMP TO ADJOINING CUMBUSTIBLE SURFACES.

Always keep lids in a convenient, easy-to-reach area in case of fire flare-ups. Baking soda will work well to put out small grease fires and is fairly easy to clean up. A five pound ABC dry type fire extinguisher is a good addition to any kitchen. **A good rule of thumb: If at any time you think that a fire is getting out of control- IT ALREADY IS! Call 911 from either a neighbor's house or a cell phone. It is far better to error inside of caution.** Another device in the kitchen that should be checked and cleaned on a regular basis is the range exhaust hood. If you look on the underside of the unit you will see a small grease filter that is easy to remove and service. Read your manual for instructions for cleaning.

The kitchen exhaust vents directly to the outside. It is a good practice to use this while cooking on the stove top.

Range Make: _____ Model #: _____

Refrigerator

According to the US Environmental Protection Agency, **ENERGY STAR**® qualified refrigerators require about half as much energy as models manufactured before 1993. **ENERGY STAR**® qualified refrigerators provide energy savings without sacrificing the features you want.

Remember, saving energy prevents pollution. In most households, the refrigerator is the single biggest energy consuming kitchen appliance. Replacing a refrigerator bought in 1990 with a new **ENERGY STAR**® qualified model would save enough energy per year to light the average household for nearly four months.

You may also be interested to know that you can reduce the amount of energy your refrigerator or freezer uses, whether with a standard or an **ENERGY STAR**® qualified model:

- Position your refrigerator away from a heat source such as an oven, a dishwasher, or direct sunlight from a window.
- To allow air to circulate around the condenser coils, leave a space between the wall or cabinets and the refrigerator or freezer and keep the coils clean.
- Make sure the door seals are airtight.
Keep your refrigerator between 35 and 38 degrees Fahrenheit and your freezer at 0 degrees Fahrenheit.
- Minimize the amount of time the refrigerator door is open.”

This refrigerator is **ENERGY STAR**® rated.

Refrigerator Make: _____ Model #: _____

Dishwasher

If you have a dishwasher you will probably have a chrome unit occupying one of the holes at the top of your sink. This is an anti-siphon valve that protects your dishwasher from the possibility of being contaminated with dirty water from the sanitary sewer system. It is normal for this device to leak a little back into the sink when the dishwasher is running.

Dishwashers normally give years of service without any maintenance needs. It is a good idea to periodically remove the bottom rack and inspect the interior for small foreign debris that may have fallen to the bottom of the machine. This debris may block the water intake or get into the pump.

If you do not intend to use your dishwasher on a regular basis, you are better off not installing one at all. Dishwashers have plastic and rubber parts that will lose their seal if not used on a regular basis. Many times, if a machine has not been used in some time, the seals will re-seal after a couple of uses. If for some reason the machine has not been used for a long time, it may require professional attention to repair it correctly.

- Run your dishwasher with a full load. Most of the energy used by a dishwasher goes to heat water. Since you can't decrease the amount of water used per cycle, fill your dishwasher to get the most from the energy used to run it.
- Avoid using the heat-dry, rinse-hold and pre-rinse features. Instead use your dishwasher's air-dry option.

This dishwasher is **ENERGY STAR®** rated.

Dishwasher Make: _____ Model #: _____

Washer/Dryer

According to the US Environmental Protection Agency, “An **ENERGY STAR®** qualified clothes washer can save you \$550 in operating costs over its lifetime compared to a regular clothes washer. **ENERGY STAR®** qualified washers are also better for the environment because lowering energy and water use means less air pollution from power plants and less water going to waste.

The main thing to watch for on your dryer is the condition of your vent. Depending on the design of your house, your vent may be anywhere from 3 ft. to 25 ft. in length. The shorter the length, the more efficient it is. Vents either need to be cleaned on a regular basis or they need to be replaced. If you have aluminum flex pipe, it is just as easy to take it down, go to your home store, and buy a new piece to replace it. **Plastic dryer hose is not recommended.** If your home has a pipe that is built into a wall and exits to a gable end or roof, you may want to consider calling a professional heating and cooling contractor to clean this for you.

WARNING: Failure to maintain your dryer vent system will decrease the efficiency of your dryer and in a worst case scenario will result in fire.

If you keep your lint filter and vent clean you should have years of trouble-free service with these appliances.

These appliances are **ENERGY STAR®** rated.

Clothes Washer Make: _____ Model #: _____

Clothes Dryer Make: _____ Model #: _____

Indoor Air Environment

Indoor air pollution is a serious issue for today's homeowners especially if a member of your family has asthma or allergies. Some studies even indicate indoor levels of pollutants may be two to five times higher than outdoor levels. Although your home was built using many non-toxic materials, the use of many common products can release toxins and particles into the air of your home. Cleaning your home regularly and using non-toxic cleaning and pest control products is an important step in reducing contaminants in your home.

Potentially dangerous household products include:

Glues	Disinfectants
Paints and thinners	Strippers
Waxes	Caulking
Varnishes	Air Fresheners
De-greasers	Hair Dye

Mold and Mildew Prevention

When water leaks or spills occur, act quickly to clean them up. If wet or damp areas are cleaned up and dried within 24-48 hours in most cases mold will not grow.

Keep indoor air humidity low. Condensation on the inside pane of windows and pipes is one sign of high humidity. The easiest option is to open windows to create ventilation and air circulation. Another option is to use a de-humidifier. If you do run a de-humidifier make sure the drip pan is emptied frequently. Always run the bathroom exhaust fan during and after showering.

Suggestions for healthy living

- Air out clothes that have been dry cleaned before wearing.
- Avoid chlorine bleach unless absolutely necessary; hydrogen peroxide is a good alternative.
- Consider a "no shoes" rule since pesticide and other irritants come in on the bottom of your feet; leave a shoe basket by the door and wear slippers.
- No smoking allowed; even smoking indoors with a window open doesn't prevent others from breathing smoke.

Choosing Green Products

- Look for products that are labeled "non-toxic," "low-VOC" or "zero VOC," and/or "biodegradable."
- Look for unscented products as some people are sensitive to fragrance
- As a general rule, avoid products labeled "Danger-Poison." Products labeled "Warning" can also be dangerous, but less so, and products labeled "Caution" are the least harmful but can still be hazardous.
- Avoid products that are labeled "Corrosive," "Severely Irritating," "Highly Flammable," or "Highly Combustive."
- Avoid using most "air fresheners," especially if they contain paradichlorobenzene. Ingredients like this can cause headaches and other health problems.
- Avoid using mothballs; instead store wool clothes in plastic bags or airtight containers.
- You can also make your own

Here are some green alternatives currently sold on the marketplace:

- | | |
|----------------------|----------------|
| • Seventh Generation | • Method |
| • Citra-Solv | • Simple Green |
| • Ecover | |

Safe, Effective, Non-toxic Cleaning Recipes

Cleaning your home is important because it helps remove harmful contaminants such as mold and bacteria. But many conventional cleaning products are toxic to you and your family and the environment. Toxic cleaning products can be a particular problem for people who have health conditions such as asthma or allergies or have chemical sensitivities or a weak immune system.

Some cleaning products can cause headaches, dizziness, skin irritation, respiratory irritation and asthma, eye irritation or worse; some contain cancer-causing substances, or toxins that can affect your reproductive system, central nervous system or your endocrine system.

Be safe! DO NOT mix these cleaning recipes with other cleaning products.

NEVER mix chlorine bleach with these recipes or any other cleaning product—if you do, you risk a sudden release of chlorine gas which can harm (even kill) you.

Basic Window & Mirror Cleaner

Put ¼ cup of white vinegar in a spray bottle and fill to top with water.

Spray on surface and wipe clean with sheets of newspaper.

Lemon-Mint Window Wash

Juice from one fresh lemon

2 cups club soda

½ teaspoon peppermint essential oil

1 teaspoon cornstarch

Mix all ingredients and pour into plastic spray bottle. Shake well before using.

Peppermint Floor Cleaner

1/4 cup liquid soap

1 cup white vinegar or lemon juice

1 cup very strong peppermint tea (has antibacterial qualities)

Combine ingredients in a bucket of warm water and mix until sudsy.

Scrub floor with mop or rag. Rinse with clean water.

All Purpose Cleaner

Add a drop of Murphy's Oil Soap on a wet washcloth and rub briskly until clean.

Club Soda Spray (simple and works!)

2 cups club soda

16 ounce spray bottle

Use a funnel and pour club soda into spray bottle. Spray on area to be cleaned and wipe with a clean rag.

Tub and Sink Cleaner

Use baking soda in place of scouring powder. Sprinkle baking soda on porcelain fixtures and rub with a wet rag. Add Castile Soap or Murphy's Oil Soap to the rag for more cleaning power. Rinse well with clean water.

Toilet Bowl Cleaner

Sprinkle baking soda inside the bowl. Squeeze a couple of drops of soap in also. Scrub with a toilet bowl brush and finish outside surfaces with a rag sprinkled with baking soda. Rinse well with clean water.

Drain Cleaner

Fill a large pot with water and bring to a boil.

REMOVE boiling pot from stovetop and set in sink or tub near drain.

Mix in 1 cup white vinegar, then mix in 1 cup baking soda.

Solution will quickly bubble up and overflow the pot, pour remaining solution down the drain. After 3-5 minutes, flush drain with hot tap water.

Repeat as necessary until drain runs clear.

Laundry machines

Once a year, put a cup or more of distilled white vinegar in the washing machine and run a full cycle to clean it

Baking Soda Oven Cleaner

Baking soda

Water

Sprinkle the oven with baking soda and spray with water. Let it sit for several hours or overnight; scrape up stains and spills. Be sure to thoroughly wash the oven with water.

Mold and Mildew Treatment

A spray made from one drop of tea tree oil to one cup of water will help clean up most mold and mildew problems. Keep the solution handy in a spray bottle—it should last for months.

A simple vinegar spray (1/2 cup distilled white vinegar to one cup water) is also effective and has a less intense scent.

Additional Resources

Recycling

The Washington State Recycling Association has a resource page that provides quick links to each county's recycling information (if available).

<http://www.wsra.net/>

King county recycling resources:

<http://your.kingcounty.gov/solidwaste/garbage-recycling/index.asp>

Disposing Of Hazardous Materials

Disposing of compact fluorescent light bulbs:

http://your.kingcounty.gov/solidwaste/takeitback/fluorescent/documents/TIBN_fluorescent-brochure.pdf

“What do I do with...” King County provides resources and information on how and where to dispose of various household wastes ranging from appliances to batteries.

<http://your.kingcounty.gov/solidwaste/wdidw/index.asp>

Alternative Transportation

The Washington Department of Transportation maintains a listing of public transit providers in Washington. A city and county directory is available at:

<http://www.wsdot.wa.gov/Transit/TransitSystems.htm>

Washington State's Commute Program (CRT) provides tools to identify carpooling, bike routes, and other alternatives.

<http://www.wsdot.wa.gov/TDM/CTR>

Bicycle safety: <http://bicyclesafe.com>

Puget Sound Transit: <http://soundtransit.org>

King County Metro: <http://metro.kingcounty.gov>

Home Composting

Kitchen Waste Composter

Build a box or sink a trash can into the ground with a tight fitting lid. Put vegetable based food scraps into your bin or can and layer with some dry leaves, sawdust, or shredded newspaper. The texture of the finished compost will depend on the materials composted and how long they spend in the bin, and may range from a wet slurry to a dark, crumbly substance similar to soil. Depending on your food habits, your composter will likely fill in four to eight months.

To harvest, shovel the top layer of un-composted food to one side and shovel the dark, soil-like compost from the bottom. Finished compost should be dry and sweet smelling; if it is wet and smelly, mix it with some soil before using. In the meantime make room for more food scraps in the can by replacing the layer of un-composted food in the can or set up a second can. Use one until full and then switch to the second, switching any un-composted food scraps between the two.

Compost resources:

http://www.seattle.gov/util/stellent/groups/public/@spu/@csb/documents/webcontent/spu01_001988.pdf

<http://your.kingcounty.gov/solidwaste/naturalyardcare/compost.asp>

Worm Composting

Worms are the animal kingdom's master composters of kitchen waste turning it into high-quality compost for your garden or container plants. Your worms can live inside or out as long as it is in a cool dry place. Worm composting will not smell as long as you feed your worms the right stuff and keep the food scraps covered and dry. Worm bins need holes for your worms to breathe and excess liquids to exit.

What to Feed Your Worms	What Not to Feed Your Worms
Vegetable and fruit scraps	Meat, fish, and poultry
Coffee grounds and filters	bones
Tea bags and loose leaf teas	Oily or greasy foods-including oily/greasy paper
Pasta, breads, cereals, and grains	Cheese, butter, and dairy products
Paper napkins, towels, and cardboard	Other animal products

There are several online resources on how to make or buy our own worm bin and where to get worms in your neighborhood.

<http://your.kingcounty.gov/solidwaste/naturalyardcare/wormbins.asp>

http://www.seattle.gov/util/stellent/groups/public/@spu/@csb/documents/webcontent/spu01_001988.pdf

<http://whatcom.wsu.edu/ag/compost/Easywormbin.htm>

Important Places in Your Home

Electrical Panel: The electrical panel in your home will normally be located in the utility room, or hallway. All the high voltage in your home flows through this panel and is distributed to the various devices and appliances in your home. **Only qualified personnel should remove the screws that hold the cover in place.** There is a door that you may open to access the breakers.



Normally, all breakers will be in the “ON” position, but you can shut off any breaker by just flipping it to the “OFF” position. In addition to the regular breakers, your house may also be equipped with CGFI breakers or Arc Fault breakers that have been installed for your personal safety. A CGFI breaker will pop any time it senses a dirt 9 connection to an earth ground. This may be as simple as turning on a light switch with wet hands. There is a button on the breaker itself that you will need to push to reset this type of breaker. On the other hand, an Arc fault breaker has the ability to sense arching that may be happening in an electrical device, or an electrical cord. These breakers are usually wired into bedrooms and if they pop you should investigate the cause. Unplug each item in the room one at a time, until the breaker does not continue to pop. The device either needs to be repaired or discarded. All the other breakers are standard breakers that have the ability to sense a load that is too great for the wiring or senses a direct short. If these pop, take time to identify what has created this problem and either isolate the defective unit or reduce the power demands of that circuit. If one of these breakers should trip, turning the breaker completely off and then turning it back on again should reset it. If this breaker trips immediately again, you have not isolated the problem and more research is needed. **If you cannot get the breaker to reset, call a qualified electrician.**

Gas Shutoffs:

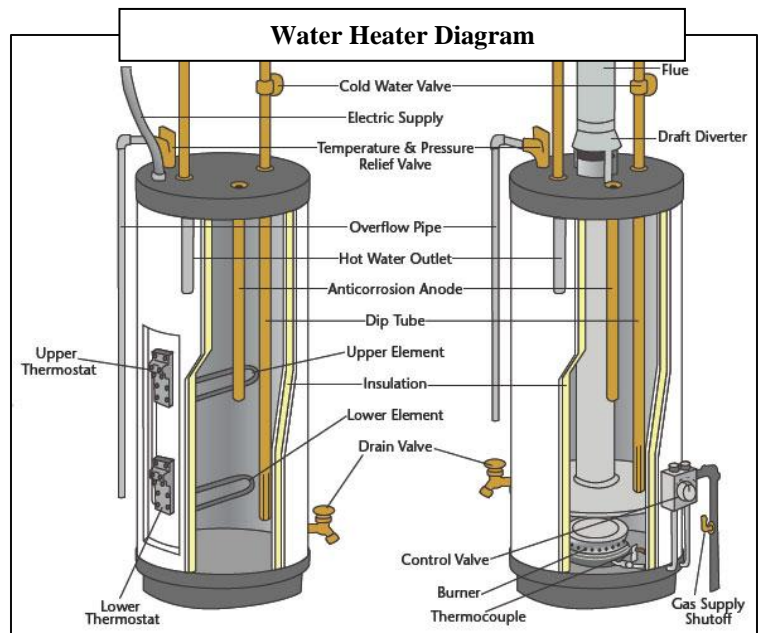
- shutoff at gas meter (some people duct-tape an appropriately-sized wrench to the pipe right by the meter in order to save time if they have to shut off the gas.) If you must use the shutoff at the meter (emergency only) please call your gas provider before turning gas back on.
- shutoff at the furnace
- shutoff at the hot water tank

Water Shutoffs:

- shutoff at water meter
- shutoff at hot water tank
- shutoff for exterior faucets
- shutoff at washing machine
- shutoffs at every sink (hot and cold water)
- shutoff at dishwasher

Electric Shutoffs:

- shutoff main circuit breaker for whole house
- shutoff individual circuits
- switch for furnace (see electric panel box or side of furnace)



Regular Maintenance Schedule

Effective June, 2003 Washington State law requires that a Contractor cannot be held liable for damages caused by a homeowner, his or her agent, employee, subcontractor, independent contractor, or consultant by virtue of the homeowner's failure to follow the builder's or manufacturer's maintenance recommendations. As an Owner, you are entitled to a general maintenance schedule specifying what maintenance obligations a homeowner is responsible for.

The maintenance items listed are by no means intended to be a complete list of all home maintenance items. This is a general compilation of maintenance recommendations and suggestions that should be used in conjunction with the manufacturer's maintenance and operation literature provided to you with your new home. Manufacturer's recommendations for maintenance of all appliances, equipment and materials must be followed to prevent voiding of any warranty.

Regular maintenance is the key

Inspecting your home on a regular basis and following good maintenance practices is the best way to protect your investment in your home. Whether you take care of a few tasks at a time or several all at once, it is important to get into the habit of doing them. A regular schedule of seasonal maintenance can put a stop to the most common – and costly – problems, before they occur. If you have questions or need advice, contact your builder or a building expert.

If you do not feel comfortable performing some of the home maintenance tasks, or have the necessary equipment, you may want to consider hiring a qualified person to help you. **You need to be aware the cost for these professional contractor services can be costly.**

In addition to the enclosed schedule, you should be on the lookout for any signs of wood boring insects and pests. Carpenter ants tend to be most active in the spring and early summer. Any signs of insects, damaged or damp wood, or fine sawdust like particles should be taken seriously. A certified pest inspector should be consulted to evaluate the situation and provide recommendations for treatment.

The General Maintenance Schedule format suggests regular maintenance intervals on a quarterly, seasonally, (spring & fall) semi-annual and annual basis. Specific reviews and tasks are described and spread out through the calendar year by month for convenience. There is no requirement for the described maintenance to be addressed on this particular monthly schedule; it is an effort to promote regular home maintenance throughout the entire year.

In addition to the attached General Maintenance Schedule, there are broader scope areas that should be made note of and added to your maintenance list as necessary. They are:

- Review all exterior surfaces for cracks in foundations, soft or rotten areas at the bottom of posts and columns, area needing painting, nesting areas from birds and general visual exterior inspection;
- Keep all vegetation and organic material at least 2 feet away from house, also from downspout, storm and area drains and window wells. Clean out under all decks and porches;
- Inside your home check for dampness around exterior wall and floor connections, cracks in drywall at ceilings and walls, door and window shifting and weather-stripping, crawl space and attic ventilation, crawl space water intrusion;
- Check relief valve on hot water tank, check floor drains for odors.

Please refer below for a homeowner's maintenance schedule for your use.

Homeowner's Maintenance Checklist

Year: _____

MAINTENANCE INTERVAL	ITEM FOR MAINTENANCE CHECK	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EVERY 30 DAYS	Test and Reset GFI Outlets												
	Check & test Smoke Detector												
	Clean Dryer Vent, Exhaust Vents												
	Inspect and Clean Faucet Heads & Aerators												
	Inspect Plumbing Shutoffs and replace as necessary												
	Clean Range Hood Filters												
	Inspect & Clean Caulking at Tub, Shower, Backsplash, Trim, Etc. ReCaulk as necessary												
	Inspect & Clean Tile Grout. ReGrout as necessary.												
	Inspect Door Hinges												
	Check for Shingle Damage												
EVERY 90 DAYS	Inspect & Clear area around Water Heater												
	Check for leaks under sinks & appliances												
	Inspect, Clean, & Clear Exterior Vents												
	Drywall Cracks, note for 11-Month Inspection												
	Maintain/Check Window Operation												
	Inspect Garage Door and Opener												
EVERY 6 MONTHS	Inspect Painted Exteriors. Paint and patch as necessary.												
	Check and Replace Heating and/or Cooling System Filters												
SEASONAL	Inspect Rain Gutters												
	Ceiling Fan(s) (If Applicable)												
	Replace Heating and/or Cooling System Filters												